

MODULE IV - STORAGE AND TREATMENT IN TANK SYSTEMS

IV.A. APPLICABILITY

IV.A.1. The requirements of this module, Module IV, shall pertain to the storage and treatment of hazardous waste in the tank systems specified in Conditions IV.B.5. through IV.B.10.

The shredders specified in IV.0 will be designed and operated in accordance with Attachment 11 and installed according to manufacturer's recommendations. The design and installation of the shredders will be certified as specified in Condition I.R.

IV.A.2. The construction and installation requirements of this module shall pertain to the construction and installation of the tank systems (including, but not limited to, the tank, ancillary equipment, foundation, and secondary containment) identified in Conditions IV.B.5. through IV.B.10.

IV.A.3. Subject to the terms of this permit, the Permittee shall operate the tank systems specified in permit Conditions IV.B.5. through IV.B.10. and IV.0. according to Conditions IV.D., IV.E., and IV.F.

IV.B. TANK SYSTEM DESIGN AND CONSTRUCTION

IV.B.1. The Permittee shall obtain a written certification from an independent, registered professional engineer qualified by experience and education in the appropriate engineering field, on the structural integrity and suitability of each tank system identified in Conditions IV.B.5., IV.B.6., IV.B.8., IV.B.9., and IV.B.10. for handling the specified hazardous wastes. The certification shall document that the foundation, structural support, seams, connections, and pressure controls for each tank have been adequately designed and that the tank has sufficient structural strength and compatibility with the wastes to be stored and/or treated to ensure that it will not collapse, rupture, or fail. The certification shall consider, but not be limited to, the following:

- IV.B.1.a. Design standards according to which tanks and/or the ancillary equipment are constructed;
- IV.B.1.b. Hazardous characteristics of the wastes to be handled;
- IV.B.1.c. Design considerations to ensure that tank foundations will maintain the load of the full tank system;
- IV.B.1.d. Volume of the tank; and
- IV.B.1.e. Material of construction of the tank and all ancillary equipment.
- IV.B.2. The written certification for each tank shall be submitted to the Executive Secretary at least sixty (60) days prior to initiating installation of any of the tanks identified in Conditions IV.B.5., IV.B.6., IV.B.8., IV.B.9, and IV.B.10.
- IV.B.3. reserved
- IV.B.4. Within 90 days after installation of the tanks and ancillary equipment, the Permittee shall submit to the Executive Secretary, at a minimum, as-built drawings.
- IV.B.5 The Permittee shall have the Waste Fuel Tanks, designated below, designed, fabricated, and assembled according to the following drawings, standards, and materials of construction:

Tank No.	Drawing No.	Design Standard	Materials of Construction
TK-001 & 001B	43-53-7-001	ASME Section VIII	Carbon Steel
TK-002 & 002B	43-53-7-001	ASME Section VIII	Carbon Steel
TK-003 & 003B	43-53-7-002	ASME Section VIII	Carbon Steel
TK-004 & 004B	43-53-7-003	ASME Section VIII	Carbon Steel
TK-005 & 005B	43-53-7-003	ASME Section VIII	Carbon Steel

Tank No.	Drawing No.	Design Standard	Materials of Construction
TK-006 & 006B	43-53-7-003	ASME Section VIII	Carbon Steel
TK-007 & 007B	43-53-7-004	ASME Section VIII	Carbon Steel
TK-008 & 008B	43-53-7-005	ASME Section VIII	Carbon Steel
TK-009 & 009B	43-53-7-005	ASME Section VIII	Carbon Steel
TK-010 & 010B	43-53-7-006	ASME Section VIII	Carbon Steel
TK-011 & 011B	43-53-7-003	ASME Section VIII	Carbon Steel
TK-012 & 012B	43-53-7-007	API 650	Carbon Steel
TK-013 & 013B	43-53-7-008	API 650	Carbon Steel
TK-014 & 014B	43-53-7-008	API 650	Carbon Steel
TK-015 & 015B	43-53-7-007	API 650	Carbon Steel
TK-016 & 016B	43-53-4-J05	API 620	Carbon Steel
TK-017 & 017B	43-53-4-J05	API 620	Carbon Steel
TK-018 & 018B	43-53-4-J06	API 620	Carbon Steel

Each Waste Fuel Tank shall pass a hydrostatic test and shall be flushed and drained prior to acceptance by the Permittee.

IV.B.6.

The Permittee shall have the Aqueous Waste Tanks, designated below, designed, fabricated, and assembled according to the following drawings, standards, and materials of construction:

Tank No.	Drawing No.	Design Standard	Materials of Construction
TK-019	43-60-4-J02	API 650	Carbon Steel
TK-020	43-60-4-J03	API 650	Carbon Steel
TK-021	43-60-4-J04	API 650	Carbon Steel
TK-022	43-60-4-J05	API 650	Carbon Steel

TK-023	43-60-4-J11	API 650	Carbon Steel
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Each Aqueous Waste Tank shall pass a hydrostatic test and shall be flushed and drained prior to acceptance by the Permittee.

- IV.B.7. The Permittee shall have the Decant Tanks, designated below, designed, fabricated, and assembled according to the following drawings, standards, and materials of construction:

Tank No.	Drawing No.	Design Standard	Materials of Construction
TK-025	43-10-4-J05	API 620	Carbon Steel
TK-026	43-10-4-J06	API 620	Carbon Steel
TK-027	43-10-4-J07	API 620	Carbon Steel
TK-028	43-10-4-J08	API 620	Carbon Steel

Each Decant Tank shall pass a hydrostatic test and shall be flushed and drained prior to acceptance by the Permittee.

- IV.B.8. The Permittee shall have the Truck Wash Water Tanks, designated below, designed, fabricated, and assembled according to the following drawings, standards, and materials of construction:

Tank No.	Drawing No.	Design Standard	Materials of Construction
TK-029	43-60-4-J09	API 620	Carbon Steel
TK-030	43-60-4-J10	API 620	Carbon Steel

Each Truck Washwater Tank shall pass a hydrostatic test and shall be flushed and drained prior to acceptance by the Permittee.

- IV.B.9. The Permittee shall have the Solids Storage Tanks, designated below, designed, fabricated, and assembled according to the following drawings, standards, and materials of construction:

Tank No.	Drawing No.	Design Standard	Materials of Construction
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TK-031	43-25-4-J02	API 620	Carbon Steel
TK-032	43-25-4-J02	API 620	Carbon Steel
TK-033	43-25-4-J02	API 620	Carbon Steel

Each Solids Storage Tank shall pass a hydrostatic test and shall be flushed and drained prior to acceptance by the Permittee.

IV.B.10.

The Permittee shall have the Energetic Solids Storage Tanks, designated below, designed, fabricated, and assembled according to the following drawings, standards, and materials of construction:

Tank No.	Drawing No.	Design Standard	Materials of Construction
TK-035	43-25-4-J03	API 620	Carbon Steel
TK-036	43-25-4-J03	API 620	Carbon Steel
TK-037	43-25-4-J03	API 620	Carbon Steel
TK-038	43-25-4-J03	API 620	Carbon Steel

Each Energetic Solids Storage Tank shall pass a hydrostatic test and shall be flushed and drained prior to acceptance by the Permittee.

IV.B.11.

Secondary containment for tank systems identified in Conditions IV.B.5. through IV.B.10. shall be designed, constructed and maintained in accordance with Attachment 11 and drawings provided in Attachments 12 and 13. Coatings for secondary containment areas shall be as specified in Attachment 11.

IV.B.12.

The Permittee shall locate the sumps for the tanks, identified in Conditions IV.B.5. through IV.B.8. as designated on the following drawings (provided in Attachment 13):

Tanks

Drawing No.

Waste Fuel Tanks	43-53-4-001, 43-53-4-002
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Aqueous Waste Tanks 43-60-4-J01

Decant Tanks 43-10-4-J04

Truck Washwater Tanks 43-60-4-J08

IV.B.13. The Permittee shall locate the tanks identified in conditions IV.B.9. and IV.B.10. within a concrete secondary containment/structural support system which is totally enclosed within a building, as designated on Drawing 43-25-4-J01.

IV.B.14. The Permittee shall construct all piping, which is used to transfer hazardous waste and is ancillary to tanks in accordance with the American National Standard Code for Pressure Piping, Chemical Plant and Petroleum Refinery Piping, ANSI B.31.3.

IV.B.15. The Permittee may replace ancillary equipment in the course of routine maintenance in accordance with the following:

IV.B.15.a. Maintenance was not initiated in response to a release from the tank system; and

IV.B.15.b. The replacement ancillary equipment does not change design or operational procedures.

IV.B.16. The Permittee shall follow procedures for a permit modification, Condition I.D., and R450-3-9., when requesting additional replacement tank systems or components unless the replacement components meet the criteria described in Condition IV.B.15.

IV.C. TANK SYSTEM INSTALLATION

IV.C.1. The Permittee shall install all Tank Systems and the subsequent ancillary equipment in accordance with the installation requirements and specifications in Attachment 14.

IV.C.2. Each tank and ancillary equipment identified in Conditions IV.B.5. through IV.B.10. shall pass a hydrostatic test for tightness prior to being placed in use.

IV.C.3. The Permittee shall obtain a written certification from an independent, qualified, installation

inspector or an independent, registered professional engineer qualified by experience and education in the appropriate engineering field attesting that proper installation procedures were used. This written installation certification shall be submitted to the Executive Secretary within thirty (30) days of completing the installation of each of the tank systems identified in Conditions IV.B.5. through IV.B.10.

- IV.C.4. The independent tank system installation inspection and subsequent written certification, specified in Condition IV.C.3., shall consider, but not be limited to, the following tank system installation documentation:
 - IV.C.4.a. Field installation report with date of installation;
 - IV.C.4.b. Approved welding procedures;
 - IV.C.4.c. Welder qualifications and certifications;
 - IV.C.4.d. Tester credentials;
 - IV.C.4.e. Field inspector credentials;
 - IV.C.4.f. Field inspection reports;
 - IV.C.4.g. Field waiver reports;
 - IV.C.4.h. Documented procedures and results of radiographic testing (at a minimum ANSI B31.3), nondestructive examinations, and hydrostatic testing;
 - IV.C.4.i. Non-compliance reports and corrective action (including field waiver reports) and repair reports;
 - IV.C.4.j. Manufacturer's Certification Letter or the American Society of Mechanical Engineers Code data report, whichever provides more information;
 - IV.C.4.k. Shop drawings with dimensional and capacity data (not applicable to field fabricated tanks listed in IV.C.4.o.);
 - IV.C.4.l. Material reports and certifications;

- IV.C.4.m. Shop inspection reports (not applicable to field fabricated tanks listed in IV.C.4.o.); and
- IV.C.4.n. Shop inspector credentials (not applicable to field fabricated tanks listed in IV.C.4.o.).
- IV.C.4.o. The conditions IV.C.4.k, IV.C.4.m. and IV.C.4.n. do not apply for field fabricated tanks TK-012 & TK-012B, TK-013 & TK-013B, TK-014 & TK-014B, TK-015 & TK-015B, TK-023, TK-031, TK-032, TK-033, TK-035, TK-036, TK-037, and TK-038.
- IV.C.5. After the written installation certification required by IV.C.3 has been submitted to the Executive Secretary, the Permittee shall submit, upon receipt of written request by the Executive Secretary, the installation documentation (e.g., field log), specified in Condition IV.C.4., within fifteen (15) days.
- IV.C.6. The Permittee shall not install any modified tank system until such time that the Executive Secretary has approved the design and specifications of the modified tank system in accordance with Condition IV.J. and the permit has been modified in accordance with R450-3-9. Ancillary equipment may be installed in the course of routine maintenance without following the permit modification procedures in R450-3-9 provided that the replacement component meets the criteria described in IV.B.15.
- IV.C.7. Prior to operating a tank system identified in Conditions IV.B.5. through IV.B.10., the Permittee shall comply with permit Condition IV.B., and IV.C.1. through IV.C.6., as applicable.

IV.D. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

All tanks identified in Conditions IV.B.5. through IV.B.10. shall be permitted to store hazardous waste bearing the codes listed below, subject to the terms of this permit, if the waste is compatible with the wastes already stored in the tank, and compatible with the tank construction material.

D001 D002 D003 D004 D005 D006 D007 D008 D009 D010
D011 D012 D013 D014 D015 D016 D017 D018 D019 D020
D021 D022 D023 D024 D025 D026 D027 D028 D029 D030
D031 D032 D033 D034 D035 D036 D037 D038 D039 D040
D041 D042 D043

F001 F002 F003 F004 F005 F006 F007 F008 F009 F010
F011 F012 F019 F020 F021 F022 F023 F024 F025 F026
F027 F028 F032 F034 F035 F037 F038 F039 F999

K001 K002 K003 K004 K005 K006 K007 K008 K009 K010
K011 K013 K014 K015 K016 K017 K018 K019 K020 K021
K022 K023 K024 K025 K026 K027 K028 K029 K030 K031
K032 K033 K034 K035 K036 K037 K038 K039 K040 K041
K042 K043 K046 K048 K049 K050 K051 K052 K060 K061
K062 K064 K065 K066 K069 K071 K073 K083 K084 K085
K086 K087 K088 K090 K091 K093 K094 K095 K096 K097
K098 K099 K100 K101 K102 K103 K104 K105 K106 K107
K108 K109 K110 K111 K112 K113 K114 K115 K116 K117
K118 K123 K124 K125 K126 K136 K141 K142 K143 K144
K145 K147 K148 K149 K150 K151 K156 K157 K158 K159
K160 K161

P001 P002 P003 P004 P005 P006 P007 P008 P010 P011
P012 P013 P014 P015 P016 P017 P018 P020 P021 P022
P023 P024 P026 P027 P028 P029 P030 P031 P033 P034
P036 P037 P038 P039 P040 P041 P042 P043 P044 P045
P046 P047 P048 P049 P050 P051 P054 P056 P057 P058
P059 P060 P062 P063 P064 P066 P067 P068 P069 P070
P071 P072 P073 P074 P075 P076 P077 P078 P082 P084
P085 P087 P088 P089 P092 P093 P094 P095 P096 P097
P098 P099 P101 P102 P103 P104 P105 P106 P107 P108
P109 P110 P111 P113 P114 P115 P116 P118 P119 P120
P121 P122 P123 P127 P128 P185 P188 P189 P190 P191
P192 P194 P196 P197 P198 P199 P201 P202 P203 P204
P205

U001 U002 U003 U004 U005 U006 U007 U008 U009 U010
U011 U012 U014 U015 U016 U017 U018 U019 U020 U021
U022 U023 U024 U025 U026 U027 U028 U029 U030 U031
U032 U033 U034 U035 U036 U037 U038 U039 U041 U042
U043 U044 U045 U046 U047 U048 U049 U050 U051 U052
U053 U055 U056 U057 U058 U059 U060 U061 U062 U063
U064 U066 U067 U068 U069 U070 U071 U072 U073 U074
U075 U076 U077 U078 U079 U080 U081 U082 U083 U084
U085 U086 U087 U088 U089 U090 U091 U092 U093 U094
U095 U097 U098 U099 U101 U102 U103 U105 U106 U107
U108 U109 U110 U111 U112 U113 U114 U115 U116 U117
U118 U119 U120 U121 U122 U123 U124 U125 U126 U127
U128 U129 U130 U131 U132 U134 U135 U136 U137 U138

U139 U140 U141 U142 U143 U144 U145 U146 U147 U148
U149 U150 U151 U152 U153 U154 U155 U156 U157 U158
U159 U161 U162 U163 U164 U165 U166 U167 U168 U169
U170 U171 U172 U173 U174 U176 U177 U178 U179 U180
U181 U182 U183 U184 U185 U186 U187 U188 U189 U190
U191 U192 U193 U194 U196 U197 U200 U201 U202 U203
U204 U205 U206 U207 U208 U209 U210 U211 U213 U214
U215 U216 U217 U218 U219 U220 U221 U222 U223 U225
U226 U227 U228 U235 U236 U237 U238 U239 U240 U243
U244 U246 U247 U248 U249 U271 U277 U278 U279 U280
U328 U353 U359 U364 U365 U366 U367 U372 U373 U375
U376 U377 U378 U379 U381 U382 U383 U384 U385 U386
U387 U389 U390 U391 U392 U393 U394 U395 U396 U400
U401 U402 U403 U404 U407 U409 U410 U411

The Permittee may also store non-hazardous waste including medical waste, industrial waste, household hazardous waste, site-generated waste, non-regulated PCB waste , and CERCLA waste with no accompanying EPA waste code.

IV.E. GENERAL OPERATING CONDITIONS

- IV.E.1. Subject to the terms of this permit, the Permittee shall store and treat only the hazardous wastes specified in permit Condition IV.D.
- IV.E.2. The Permittee shall not place wastes exhibiting the characteristics of corrosivity or reactivity in any of the tank systems located at the facility.
- IV.E.3. The Permittee may store ignitable wastes only in the tanks identified in Conditions IV.B.5. and IV.B.7. and TK-023 (identified in Condition IV.B.6.).
- IV.E.4. Dimensions and capacity of each tank identified in Conditions IV.B.5. through IV.B.10. shall be as shown in Section 1.2, Table D-2.1 in Attachment 11. The Permittee shall maintain the level of each tank identified in Conditions IV.B.5. through IV.B.10. at or below the nominal capacity specified in Table D-2.1 of Attachment 11.
- IV.E.5. The Permittee shall not place hazardous wastes, treatment reagents, or other materials in the tank systems identified in Conditions IV.B.5. through

- IV.B.10. if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail.
- IV.E.6. The Permittee shall use appropriate controls and practices to prevent spills and overflows from the tank or containment system.
- IV.E.7. The Permittee shall empty all liquid from a sump, drip pan, or secondary containment area immediately (no later than twenty-four (24) hours) upon discovering the contents. If the Permittee demonstrates to the Executive Secretary that removal of the liquid cannot be accomplished within twenty-four (24) hours, then the Permittee shall empty all liquid in as timely a manner as is possible to prevent harm to human health and the environment. Any liquid removed from the sump, drip pan, or secondary containment area shall be sampled, analyzed, and managed as a hazardous waste in accordance with the Waste Analysis Plan in Attachment 2, Attachment 9, and/or Attachment 11.
- IV.E.8. Containment for one hundred percent (100%) of the volume of the largest tank in the containment area shall be provided for each tank area. Containment shall be provided in accordance with volumes listed in Section 1.4, Table D-2.3 of Attachment 11.
- IV.F. SPECIFIC OPERATING CONDITIONS**
- IV.F.1. All tanks identified in Conditions IV.B.5. and IV.B.7. shall be nitrogen blanketed.
- IV.F.2. The Permittee shall handle the waste in conformity to the flow diagram, Drawing 43-00-0-J01, Attachment 1.
- IV.F.3. All tanks identified in Conditions IV.B.5. and IV.B.7. shall have a combination of pressure control valves, pressure/vacuum relief valves, and emergency relief vents.
- IV.F.4. Tank TK-023, identified in Condition IV.B.6., shall have a pressure and vacuum relief valve. All other tanks identified in IV.B.6., as well as

those tanks identified in Condition IV.B.8., shall have an open vent to the atmosphere.

- IV.F.5. The Permittee shall design and operate ventilation systems in accordance with Attachment 11, and the following conditions: For purposes of this Condition, the SCC will be considered to be in operation when the temperature is above 1400°F.
- IV.F.5.a. All tanks identified in Condition IV.B.5. will vent to the incinerator when the Secondary Combustion Chamber (SCC) is operating. When the incinerator is shut down, tanks will be vented to the carbon adsorption system described in Attachment 11. Ventilation for tanks identified in Condition IV.B.5. will be as shown on Drawing 43-53-9-J04 (Attachment 13).
- IV.F.5.b. Tank TK-023, identified in Condition IV.B.6., will be vented to the SCC when it is operating. When the incinerator is shut down, this tank will vent to the carbon adsorption system described in Attachment 11.
- IV.F.5.c. All tanks identified in Condition IV.B.7. will vent to the carbon adsorption system described in Attachment 11. Ventilation for tanks identified in Condition IV.B.7. will be as shown on Drawing 43-10-9-J02 (Attachment 13).
- IV.F.5.d. All tanks identified in Condition IV.B.9. will be vented through a baghouse dust collector (Attachment 11) prior to being exhausted to the atmosphere. Ventilation for tanks identified in Condition IV.B.9. will be as shown on Drawing 43-25-9-J02 (Attachment 13).
- IV.F.5.e. All tanks identified in Condition IV.B.10. will be vented to the SCC or to the carbon adsorption system when the SCC is in operation as discussed in Attachment 11. When the SCC is not in operation, the volume of air being exhausted from the tanks will be reduced by lowering the lids onto the tanks and ventilating only the air space in each tank as discussed in Attachment 11. This reduced volume of exhaust air will be treated via carbon adsorption prior to exhaust to the atmosphere. Ventilation for tanks identified in Condition IV.B.10. will be as shown on Drawing 43-25-9-J03 (Attachment 13).

- IV.F.6. The Permittee shall hydrostatic test each of the tanks identified in Conditions IV.B.5. through IV.B.10. for tightness at least once every four (4) year period.
- IV.F.7. The Permittee shall maintain at least one (1) foot of freeboard in each tank identified in Conditions IV.B.9. and IV.B.10.
- IV.F.8. All tank systems identified in Conditions IV.B.5., IV.B.6., IV.B.7., and IV.B.8. shall be equipped with high level alarms, level indicators, level controllers, and check valves.
- IV.F.9. All tanks identified in Conditions IV.B.5., IV.B.6., IV.B.7., and IV.B.8. shall be equipped with an automatic waste feed cutoff.
- IV.F.10. The permittee shall prevent the freezing of waste in tank systems identified in IV.B.6. by the use of heaters.
- IV.F.11. TK-018, identified in Condition IV.B.5., shall be equipped with a steam jacket to provide heating capabilities for high viscosity sludges.
- IV.F.12. All tanks identified below shall be equipped with top-mounted agitators except in instances when it is necessary for the Permittee to remove the agitators to perform maintenance. When the agitators are removed, the tanks will not be used to store hazardous waste:
- ! TK-001 and 001B
 - ! TK-002 and 002B
 - ! TK-003 and 003B
 - ! TK-007 and 007B
 - ! TK-012 and 012B
 - ! TK-013 and 013B
 - ! TK-014 and 014B
 - ! TK-015 and 015B
 - ! TK-016 and 016B
 - ! TK-017 and 017B
 - ! TK-018 and 018B
 - ! TK-019
 - ! TK-021
- IV.F.13. All tanks identified below shall be equipped with phase separation nozzles:

! TK-003 and 003B
! TK-007 and 007B
! TK-010 and 010B
! TK-016 and 016B
! TK-017 and 017B
! TK-018 and 018B
! TK-023
! TK-025
! TK-026
! TK-027
! TK-028

IV.F.14. All tanks identified in Conditions IV.B.6. and IV.B.9. and tanks TK-012 and 012B, TK-013 and 013B, TK-014 and 014B, and TK-015 and 015B (identified in Condition IV.B.5.) shall be equipped with an interstitial leak detection system. The leak detection system shall be designed and operated in accordance with Attachment 11, and Drawings 43-53-7-009, 43-25-4-J01, and 43-60-2-J03 in Attachment 13.

IV.F.15. All tanks identified in Conditions IV.B.5. and IV.B.7. will have anti-static inlets.

IV.G. RESPONSE TO LEAKS OR SPILLS

IV.G.1. In the event of a leak or a spill from a tank system, including the secondary containment system, or if the tank system becomes unfit for continued use, the Permittee shall remove from service immediately that component which is leaking or unfit for use and complete the following actions:

IV.G.1.a. Stop the flow of hazardous waste to the component and inspect the system to determine the cause of the release.

IV.G.1.b. Remove waste and accumulated precipitation from the component within twenty-four (24) hours of the detection of the leak, in accordance with Condition IV.E.6., to prevent further release and allow inspection and repair of the system. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall verbally notify the Executive Secretary and demonstrate that the longer time period is required.

- IV.G.1.c. Manage the collected material as a hazardous waste in accordance with all applicable requirements R450-5, R450-6, and R450-8.
- IV.G.1.d. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection shall (1) prevent further migration of the leak or spill to soils or the surface water and (2) remove and properly dispose of all contamination of the soil or surface water.
- IV.G.2. The Permittee shall close any tank system that is unfit for continued use, or any tank system that is leaking, in accordance with the Closure Plan in Attachment 8 unless the following actions are taken:
- IV.G.2.a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee may return the system to service as soon as the released waste is removed and repairs, if necessary, are made;
- IV.G.2.b. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service;
- IV.G.2.c. For a release to the environment caused by a leak from an aboveground portion of the tank system which can be visually inspected that does not have secondary containment, the Permittee shall repair the tank system before returning it to service; and
- IV.G.2.d. If the Permittee replaces a component of a tank system to eliminate a leak, that component must satisfy the requirements for new tank systems or components in R450-8-10.
- IV.G.3. For all major repairs to eliminate leaks or restore the integrity of the tank system, the Permittee shall obtain a certification by an independent, registered, professional engineer qualified by experience and education in the appropriate engineering field that the repaired system is capable of handling hazardous wastes without release for the intended life of the system before returning the system to service. Examples of major repairs are: installation of an

internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault.

IV.H. INSPECTION SCHEDULES AND PROCEDURES

- IV.H.1. The Permittee shall inspect the tank systems in accordance with the Inspection Schedule specified in Attachment 4 and shall comply with permit Conditions IV.H.2. through IV.H.11. as part of those inspections.
- IV.H.2. The Permittee shall inspect the overfill controls in accordance with the Inspection Schedule in Attachment 4.
- IV.H.3. Within 90 days of the effective date of the permit, the Permittee shall submit to the Executive Secretary for approval a revised inspection schedule for tank systems to include the following:
- IV.H.3.a. A listing of specific pressure, temperature, and level monitoring equipment and readouts for all tanks;
- IV.H.3.b. The Truck Washwater Tank area on the list of tank loading and unloading areas;
- IV.H.3.c. A listing of high level alarms, check valves, freeboard, nitrogen blanketing system, electric heaters for the Aqueous Waste Tanks, and steam jacket for TK-018;
- IV.H.3.d. Inspection of the clamshell mechanism and overhead bridge crane associated with the Solids Storage Tanks and Energetic Solids Storage Tanks; and
- IV.H.3.e. Daily visual inspection of solids level in the Solids Storage Tanks and Energetic Solids Storage Tanks.
- IV.H.4. The Permittee shall, in addition to Condition II.F, visually inspect each tank (when in service) identified in Conditions IV.B.5. through IV.B.10 at a minimum of once each twenty-four (24) hour operating period for the following:
- IV.H.4.a. Spills around unloading area;

- IV.H.4.b. Leaking pumps;
- IV.H.4.c. Leaking piping;
- IV.H.4.d. Gauge readings;
- IV.H.4.e. Leak detection systems to ensure that the tank system is being operated according to its design;
- IV.H.4.f. Remote sensing level indicators for each liquid or pumpable sludge tank;
- IV.H.4.g. Waste levels in energetic and non-energetic solids tanks;
- IV.H.4.h. Emission control equipment; and
- IV.H.4.i. Emergency equipment.
- IV.H.5. The Permittee shall comply with the Overfill Control Testing Procedure outlined in Appendix 5 of Attachment 11.
- IV.H.6. {Reserved}
- IV.H.7. The Permittee shall, in addition to Condition II.F, visually inspect each tank system identified in Conditions IV.B.5. through IV.B.10. at least once each twenty-four (24) hour period for the following:
 - IV.H.7.a. Integrity of the secondary containment dikes;
 - IV.H.7.b. Aboveground portions of the tank system, including the bottoms of the aboveground tanks;
 - IV.H.7.c. Evidence of corrosion;
 - IV.H.7.d. Leaking fixtures;
 - IV.H.7.e. Leaking seams; and
 - IV.H.7.f. Indications of leaks or spills.
- IV.H.8. The Permittee shall, in addition to Condition II.F, ultrasonically test each tank identified in Conditions IV.B.5. through IV.B.10. to determine the general condition of the tank at least once each year. Additionally, the Permittee shall empty and visually inspect (e.g., remote

inspection via video camera, etc.) each tank identified in conditions IV.B.5 through IV.B.10 once every four years. The inspection and the findings shall be documented in the operating record, in accordance with Condition II.F.2.

- IV.H.8.a. reserved
- IV.H.8.b. The Permittee shall comply with the ultrasonic and visual tank inspection procedures outlined in Attachment 4.
- IV.H.9. The Permittee shall, in addition to Condition II.F, inspect the secondary containment vaults for the tanks identified in Conditions IV.B.9. and IV.B.10. at least once every thirty (30) days for the following:
 - IV.H.9.a. Indication of cracks;
 - IV.H.9.b. Gaps; and
 - IV.H.9.c Peeling of the sealant.
- IV.H.10. If, during an inspection, a hose is found to be damaged or to show excessive wear, the hose shall be replaced within seventy-two (72) hours of discovery. The replacement of the hose shall be documented on the inspection form.
- IV.H.11. The Permittee shall document compliance with Conditions IV.H.1. through IV.H.10. and shall place this documentation in the operating record for the facility.

IV.I. RECORDKEEPING AND REPORTING

- IV.I.1. The Permittee shall verbally notify the Executive Secretary, within twenty-four (24) hours of detection, when a leak or spill occurs from the tank system or secondary containment system to the environment.
- IV.I.2. Leaks or spills from a tank system that are contained within a secondary containment system need not be reported as required in IV.I.1. Also, releases of less than or equal to a quantity of one (1) pound need not be reported as required by IV.I.1 provided they are immediately contained and

cleaned up. However, said releases shall be recorded in the Operating Record.

- IV.I.3. In addition to complying with Condition IV.I.1., within thirty (30) days of detecting a release to the environment from the tank system or secondary containment system, the Permittee shall submit the following information to the Executive Secretary:
 - IV.I.3.a. Likely route of migration of the release;
 - IV.I.3.b. Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);
 - IV.I.3.c. Results of any monitoring or sampling conducted in connection with the release. If the Permittee finds it will be impossible to meet this time period, the Permittee shall submit to the Executive Secretary a schedule of when the results will be available. This schedule shall be submitted before the required thirty (30) days submittal period expires;
 - IV.I.3.d. Proximity of downgradient drinking water, surface water, and populated areas; and
 - IV.I.3.e. Description of response actions taken or planned.
- IV.I.4. The Permittee shall obtain, and keep on file at the Facility, the written statements by those persons required to certify the design and installation of the tank system and the written tank system assessments as specified in Conditions IV.B.2., IV.B.3., IV.C.3., IV.C.4., and IV.G.3. and in accordance with R450-8-10. (40 CFR Section 264.192 incorporated by reference) until such time that the tank system is certified closed in accordance with Attachment 8.
- IV.I.5. The Permittee shall maintain at the Facility a record of the results of hydrostatic and integrity tests conducted in accordance with Conditions IV.B.5. through IV.B.10. and IV.C.2.
- IV.I.6. In the event the volume of waste in a tank exceeds the nominal capacity (maximum allowable capacity) designated for that tank in the specifications in Section 1.2, Table D-2.1 in Attachment 11, the

Permittee shall document in the Operating Record the following information:

- IV.I.6.a. Identify the tank by the identification number specified in Attachment 11;
- IV.I.6.b. The date and time of occurrence; and
- IV.I.6.c. Describe the operating control procedures that allowed the waste in the tank system to exceed the maximum allowable capacity.
- IV.I.7. The Permittee shall document and record the results of the analysis of each spill in the Operating Record. The Permittee shall also document and record any subsequent treatment required by the Waste Analysis Plan, Attachment 2, in the Operating Record.
- IV.I.8. The Permittee shall submit to the Executive Secretary all certifications of major repairs to correct leaks within seven (7) days of returning the tank systems to service.

IV.J. TANK SYSTEM MODIFICATION REQUIREMENTS

The Permittee may modify a tank system regulated by this module, Module IV, in accordance with Condition IV.B.15 without obtaining a permit modification. If the system modification does not meet the criteria specified in Condition IV.B.15., then the Permittee shall modify the tank system through a permit modification subject to R450-3-9., and in accordance with the following:

- IV.J.1. The Permittee shall submit the modified tank system design drawings and specifications to the Executive Secretary for approval at least sixty (60) days prior to the planned beginning of modification;
- IV.J.2. The Permittee shall submit, within seven (7) days of returning the tank to service, a written assessment, reviewed and certified by an independent, registered professional engineer qualified by experience and education in the appropriate engineering field that attests to the structural integrity and the suitability of the modified tank for handling the specified hazardous

waste in accordance with R450-8-10. (40 CFR Section 264.192 incorporated by reference); and

- IV.J.3. The Permittee shall not proceed with construction or installation of the modified tank system unless construction is allowed by R450-3-9.

IV.K. TANK SYSTEM PARTIAL CLOSURE

An application for permit modification shall be submitted to reflect the proposed change in the tank system(s). The permittee may perform partial closure of a tank system and not replace the closed system. The application for modification shall specify the information contained in Conditions IV.K.1 through IV.K.9:

- IV.K.1. The tank to be removed from current service;
- IV.K.2. The method of removal;
- IV.K.3. The replacement capacity (applicable if the closed tank system is to be replaced);
- IV.K.4. The decontamination method;
- IV.K.5. The inspection method (applicable if the tank system removed from service is to be used again);
- IV.K.6. The reconditioning plan (applicable if the tank system removed from service is to be used again);
- IV.K.7. The repair schedule (applicable if the tank system removed from service is to be used again);
- IV.K.8. The installation plan (applicable if the tank system removed from service is to be used again); and
- IV.K.9. A description of the new condition of service (applicable if the tank system removed from service is to be used again).
- IV.K.10 A partial closure shall not be implemented until such time as the permit modification has been approved by the Executive Secretary. An exception to this requirement is the replacement of a tank in accordance with R450-3-9.1(d). Tank replacement that meets these requirements may

proceed without prior approval by the Executive Secretary.

IV.K.11. Upon approval of the modification, the tank shall be removed from service. The operating record shall show that the tank was removed from service and the date on which it was removed. This date shall be the effective date of tank removal.

IV.K.12. The tank shall be emptied and decontaminated. The tank shall be thoroughly washed, until the wash agent is tested as clean. The decontamination solution shall be collected and managed as a hazardous waste.

IV.K.13. If the tank removed from service is to be used again, then the empty tank shall be opened and visually inspected for general condition assessment. The Permittee shall then take the following measures:

IV.K.13.a. The tank shall have any necessary repairs performed and documented in the operating record. The tank shall be certified according to Condition IV.B.1.

IV.K.13.b. The installation shall be certified by an installation inspector or an independent, registered professional engineer qualified by experience and education in the appropriate engineering field in accordance with Condition IV.C.3.

IV.K.13.c. The certifications referred to in Conditions IV.K.13.a. and IV.K.13.b. shall be submitted to the Executive Secretary within seven (7) days of placing the tank into service.

IV.L. **TANK CLOSURE**

The Permittee shall close the Tank Systems in accordance with the approved Closure Plan, Attachment 8.

IV.M. **PROVISIONS FOR CORROSIVE AND REACTIVE WASTES**

All corrosive and reactive wastes shall be managed at the Special Handling Bay or shall be fed into

the burner kiln via the ram feeder. No corrosive or reactive waste shall be stored and/or mixed in the tanks, in accordance with Condition IV.E.2. and Attachment 11.

IV.N.

PROVISIONS FOR INCOMPATIBLE WASTES

- IV.N.1. The Permittee shall not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or incompatible material. Compatibility will be determined and decontamination performed according to the procedures specified in the Waste Analysis Plan, Attachment 2.
- IV.N.2. The Permittee shall collect the decontamination solution generated from compliance with permit Condition IV.N.1. The decontamination solution shall be considered a hazardous waste and shall be managed appropriately.

IV.O.

SOLIDS SHREDDERS

The Permittee may operate a Bulk Solids Shredder and an Energetic Solids Shredder in Units 251 and 252, respectively (see Drawings 43-01-1-J02 in Attachment 1), in accordance with the following conditions.

- IV.O.1. The Bulk Solids Shredder shall be designed, constructed, and operated in accordance with Attachment 11. It shall be constructed primarily of carbon steel and shall have a nominal capacity of 25 tons per hour. The Bulk Solids Shredder shall be located in an area between tanks TK-031 and TK-032 in Unit 251 (see Drawing 43-25-4-J01). Unit 251 will be vented in accordance with Attachment 11 and Drawing 43-25-9-J02 (Attachment 13).
- IV.O.2. The Energetic Solids Shredder shall be designed, constructed, and operated in accordance with Attachment 11. It shall be constructed primarily of carbon steel and shall have a nominal capacity of 25 tons per hour. The Energetic Solids Shredder shall be located on rails in Unit 252 (see Drawing 43-25-4-J01 in Attachment 13). Unit

252 will be vented in accordance with Attachment 11 and Drawing 43-25-9-J03 (Attachment 13).

IV.O.3. The following hazardous waste codes shall not be processed through the Bulk Solids Shredder or the Energetic Solids Shredder:

!	D003	
!	K044	
!	K045	
!	K047	
!	P009	Ammonia picrate
!	P065	Mercury fulminate
!	P081	Nitroglycerine
!	U133	Hydrazine
!	U234	Trinitrobenzene

IV.O.4. The Bulk Solids Shredder and the Energetic Solids Shredder will be inspected in accordance with procedures specified in Attachments 4 and 11.

IV.O.5. In addition to conditions in IV.0., the Permittee shall comply with all applicable conditions listed in Module IV for operation of the Bulk Solids Shredder and the Energetic Solids Shredder.